# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/723,064 | 11/26/2003 | Baudry Jean-Pierre | 0595-1038 | 8623 |

466 7590 07/19/2006

YOUNG & THOMPSON
745 SOUTH 23RD STREET
2ND FLOOR
ARLINGTON, VA 22202

| EXAMINER | |
|---|---|
| HOLZEN, STEPHEN A | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3644 | |

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/723,064 | JEAN-PIERRE, BAUDRY | |
| | Examiner | Art Unit | |
| | Stephen A. Holzen | 3644 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *08 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *61-72* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *61-72* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 5/8/2006 have been fully considered but they are not persuasive.

2. Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." In re Young, 75 F.2d 996, 25 USPQ 69 (CCPA 1935) (as restated in In re Otto, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)) the manner or method in which such machine is to be utilized is not germane to the issue of patentability of the machine itself. In In re Casey, 370 F.2d 576, 152 USPQ 235 (CCPA 1967).

The applicant never positively claims the symbols in the claims. Applicant positively claims the symbol generator, but the generated symbols themselves are not. Furthermore, the applicant's invention is not drawn to a device that positively and always uses the symbols.

For instance, the display will not always display a "flight path to be intercepted", once intended flight path is intercepted this limitation would not continue to be displayed?

Secondly, the lines are not fixed in place and instead these lines change their shape and configuration on the display screen depending on aircraft location and speed.

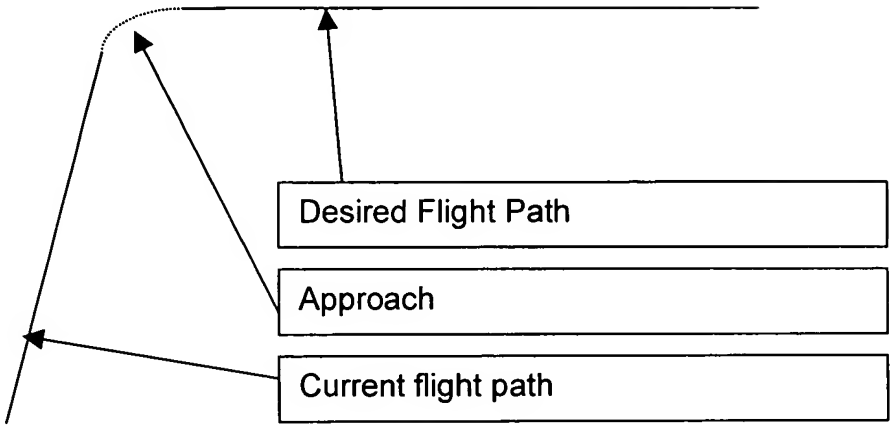
Therefore applicant's argument that prior art does not disclose the claimed symbols is moot, because the applicant's claims do not require these symbols be displayed. Instead applicant's claims only require that the device be capable of displaying these symbols.

Relating back to the teaching of Thibautl (see above) the apparatus is a display, its intended use is to display symbols, the symbols are contents of the display during the displays intended operation. These symbols therefore are of no significance in determining patentability of the display. limitations.

3. Applicant has argued that the schematic symbols of Carriker in view of Cronkhite are not all displayed at the same time. The examiner cannot find this limitation in the claims. Applicant is requested to point out to the examiner where, in the claims, the flight path to be intercepted and the remaining symbols are required to all be displayed

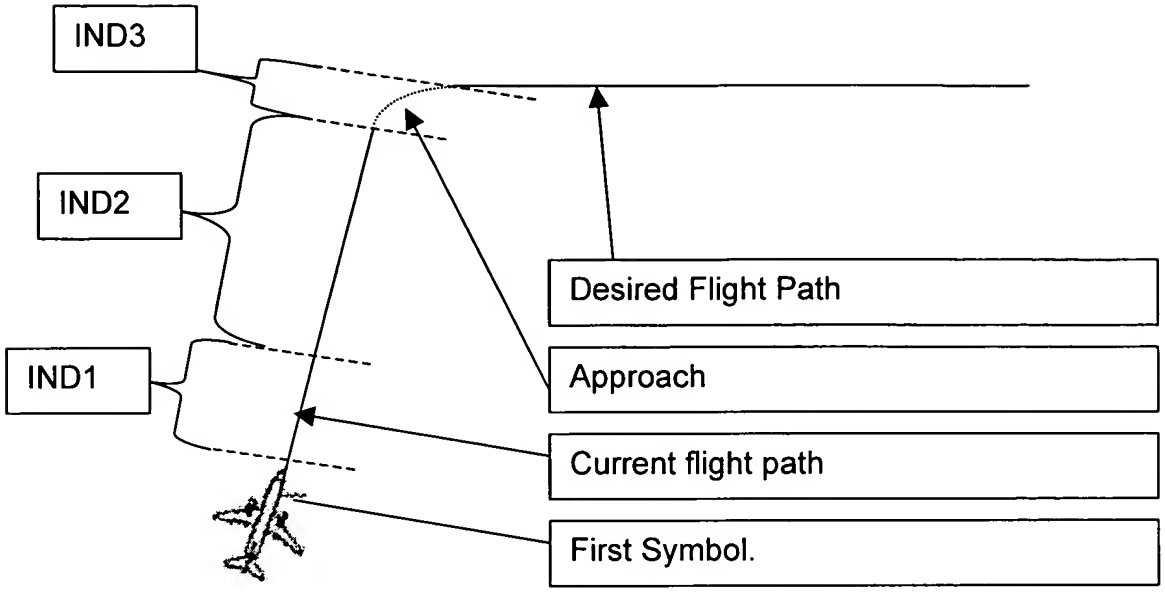
simultaneously. Furthermore the symbols are broadly read on by an illustration showing two lines, and an aircraft symbols (illustrated in Figure B)

Figure A:




Since the indicators are nothing more than lines, and a graphically schematic illustration of a line is nothing more than a plurality of discrete and impendent dots (segments) the examiner can "cut up" the line into separate groups and call them "indicators".

Figure B:




From this illustration applicant should be able to see where with only two lines and a "first symbol" all the indicators have been illustrated by Carriker.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 61-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carriker (2003/0004619) in view of Cronkhite et al (5,308,022).

Carriker discloses a device having a calculator that calculates an aircraft's ground speed vector (see step #300 and #310 in Figure 10; the calculator is not specifically illustrated however is necessarily used; evidenced by the fact that #72 displays ground the speed and #60 and Figure 9A display the current direction of travel)

a symbol generator connected to the calculator (see ¶0010 lines 3 and 4, the symbol generator is necessarily connected to the calculator in that the calculator determines the data to be symbolically displayed).

Carriker further discloses that it is known to illustrate on paper:

a flight path symbol that to be intercepted (#290),

a first symbol indicating a position the airplane relative to the flight path (see Figure 9A which has an aircraft symbol),

a first indicator (IND1, Figure 1 below, these is merely an extension of Carriker illustration in Figure 9A, the examiner will not withdraw the natural and inherent extensions of Carrikers illustration) that is attached to said first symbol and that straight line with an angular orientation corresponding to a direction of the ground speed vector and with length is capable of varying and capable of corresponding to the magnitude of the ground speed vector when the magnitude exceeds a predetermined value and that is constant and proportional to the predetermined value when the magnitude less than or equal to the predetermined value,

second indicator (IND2) that is attached to said first indicator (see Figure 1 Below) and that a straight line whose direction is capable of indicating the initial part of an approach path for intercepting the flight path and whose length is capable of adjusting as the position the airplane changes relative to the flight path,

and third indicator (IND3) that extends tangentially from said second indicator and is connected tangentially to flight path, said third indicator being a curved indicating a final part of the approach path for intercepting the flight path (see Figure 1 Below).

Carriker does not specifically disclose displaying the schematic flight paths and other symbols on a graphical display in schematic form.

Cronkhite however discloses that it is well known to graphically display symbols (see Figure 5) schematically.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made to illustrate the schematic diagrams and symbols of Carriker on the display of Cronkhite for the purpose of increasing pilot awareness.

Furthermore it should be appreciate that applicants claims do not require the sysmbols at all, and instead only require that these known symbols be capable of schematic display to a pilot. Crriker and Cronkhite teach this capability.

Re – Claim 64: Necessarily the curve (IND3) represents a flight path that is capable of being achieved. The examiner asserts that the calculating step 310 generates the optimal course and the schematic diagram illustrates this course based on the current flight characteristic (airspeed, turning capability, wind speed and direction.)

Re - Claims 67 and 72: see ¶0017 where Carriker teaches an autopilot controller.

Re – Claim 62, 63, 65, and 68-71: The applicant has not further limited the independent claim with any structural limitations. These claims are generally functional in nature. The examiner asserts that the display and its internal controls can be programmed in such a way that only the information necessary for proper and safe piloting is displayed. It should be appreciated that the applicant's functional language in the claims do not serve to impart patentability. While features of an apparatus may be recited either structurally or functional, claims directed to an apparatus must be

distinguished from the prior art in terms of structure rather than function. Apparatus claims cover what a device is, not what a device does. A claim containing a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior apparatus teaches all the structural limitation of the claims. In re Schreiber, 128 F.3d 1473, 1477-78,44USPQ2d, 1429, 1431-.2 (Fed. Cir. 1997); Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469 ,15 USPQ2d 1525, 1528 (Fed. Cir. 1990); Ex parte Masham, 2USPQ 2d 1647 (Bd. Pat. App. & Inter. 1987).

6. Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carriker in view of Cronkhite et al and further in view of Krumes et al (5,465,142). Carriker does not disclose an obstacle detector and a symbol for the obstacle. Krumes discloses, however, a system for sensing and symbolically representing objects in the flight path of an aircraft and alerting the pilot to their presence. (See Abstract lines 1-5, #37 and Figure 18). It would have been obvious to one having ordinary skill in the art, at the time the invention was made to use obstacle avoidance detector and have the symbol generator generate symbols that represent the obstacles to increase the safety of the aircraft.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen A. Holzen whose telephone number is 571-272-6903. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sah

TERI PHAM LUU
SUPERVISORY
PRIMARY EXAMINER